

# Pediatric Pulmonology Fellowship University of WA/Seattle Children's Hospital

## Program Overview/Introduction

**Ronald L. Gibson, MD, PhD (Fellowship Program Director)**

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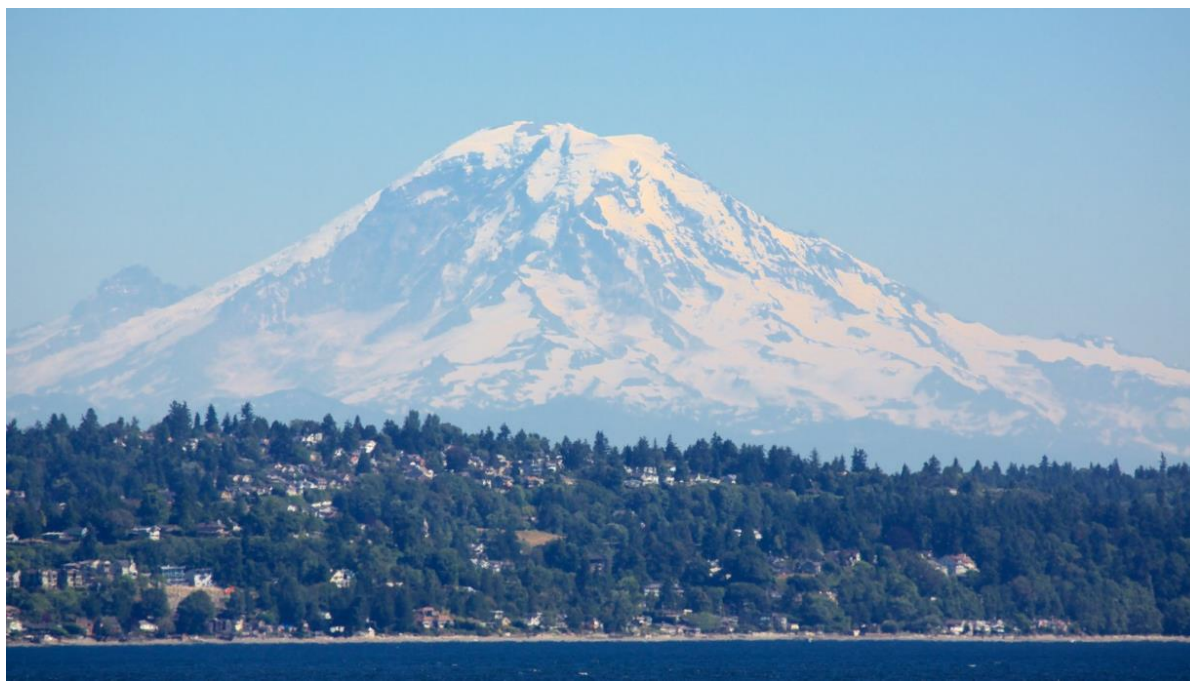
**July 2020**



# Mission Statement

*“Train pediatric pulmonologists to be skilled clinicians with a foundation in physiology, critical thinkers, avid teachers, and who improve care via scholarship and programmatic development”*

*and have FUN during the experience!*



# Fellowship Orientation- A Process

COVID-19 will Impact 2020-2021; uncertain for 2021-2022

For 2020-2021-Some Web-Based Formats

- Meet with Program Director (PD)/Associate PD (frequent check-ins first mo)
- Meet and have frequent check-ins with Senior Fellow(s) for “real orientation”
- Introductory On-Boarding/Educational Sessions
  - Lectures from Faculty content experts on broad topics in first few weeks
  - Flexible bronchoscopy and “home ventilator” introduction starts in first 2 weeks
  - Shadowing expert Respiratory Therapists begins in first month
  - Meet with all Staff and Faculty Members in first 3 months
- Review Fellowship Share Drive for Key References/Guidelines
- Review Pediatric Pulmonology Core Curriculum/Rotation Objectives
  - Located in Med Hub and on Shared Pulmonary Drive



# Faculty and Roles/*Research Interests*

- Gregory J. Redding, MD
  - Division Chief, PI of the Pediatric Pulmonary Center Grant x 20+ years, Alaska Outreach Program
  - *Scoliosis and Thoracic Insufficiency Syndromes, Non-CF Bronchiectasis in Alaskan Natives*
- Matthew Abts, MD
  - Pulmonary Lead for Aero-digestive Program/Director of Flexible Bronchoscopy
  - *Bone Marrow Transplant and Pulmonary Outcomes*
- Maida Chen, MD
  - Director of Sleep Medicine
  - *Sleep related research in craniofacial and other disorders*
- Jonathan Cogen, MD, MPH
  - Associate Fellowship Program Director/Owner of Complicated Pneumonia-Empyema Pathway
  - *CF epidemiology and antibiotic stewardship*
- Mary Crocker, MD, MS
  - *Global Health/Lower Respiratory Tract Infections*
- Jason Debley, MD, MPH
  - Medical Director of Pulmonary Diagnostic Lab
  - *Translational research in airway biology and asthma*
- Laura Ellington, MD, MS
  - *Lung health in limited resource settings*



# Faculty and Roles/*Research Interests* (2)

- Lourdes Del Rosso, MD
  - Associate Director of Sleep Medicine
  - *Restless Leg Syndrome*
- Laurie Eldredge, MD, PhD
  - Pulmonary Lead for inpatient BPD Clinical Program
  - *Role of macrophages in neonatal lung injury*
- Ron Gibson, MD, PhD
  - CF Center and Fellowship Director, SCH CF Therapeutic Development Center
  - *Genetic modifiers of CF airway infection and lung disease; CF clinical trials*
- Luke Hoffman, MD, PhD
  - Director of CF Microbiology Laboratory
  - *CF airway and intestinal microbiology*
- BreAnna Kinghorn, MD, MS
  - Member, Primary Ciliary Dyskinesia Referral Center
  - *PCD and Non-CF Bronchiectasis/Congenital Diaphragmatic Hernia*
- Carey Lockhart, MD
  - Pediatric Neurology and Sleep Medicine
- Susan Marshall, MD
  - Vice Chair for Medical Education
  - *CF Clinical trials and Medical Education*



# Faculty and Roles/ *Research Interests* (3)

- Erin MacKintosh, MD
  - Pulmonary and Sleep medicine
  - *Pulmonary and Sleep Disorder manifestations of Marfan's syndrome*
- Dave Nichols, MD
  - Medical Director of the CF Therapeutics Development Network (TDN)
  - *Clinical (e.g. AZM/Tobra interaction) and Translational CF Research, TDN CF Research Scholars Program*
- Thida Ong, MD
  - Associate CF Center Director/Medical Director of QI in Pulmonary Division
  - *QI research in pulmonary and nutritional outcomes in CF*
- Steve Reeves, MD, PhD
  - Tech Guru/Lead-Wenatchee Outreach Clinic
  - *Translational research in airway matrix biology and asthma*
- Margaret Rosenfeld, MD, MPH
  - Assoc. Vice Chair for Research, Co-Director Fellows College, Co-Director of SCH Clinical Research Scholars Program
  - *CF Epidemiology, treatment and outcome measures in early CF lung disease, PCD, and global health*
- Michelle Sobremonte-King, MD
  - Pulmonary and Sleep medicine
  - *Neuromuscular disease and care of chronically-ventilated patients*

# Faculty Roles / Research Interests (4)

- Amanda Striegl, MD, MS
  - Medical Director of Respiratory Therapy/Pulmonary Lead Neuromuscular Disease
  - *Quality improvement in technology dependent children and neuromuscular respiratory disease*
- Demet Toprak, MD
  - Pulmonary Lead for Education of Medical Students
  - *CF-related clinical research*
- Joanna Wrede, MD
  - Pediatric Neurology and Sleep Medicine
- Ben Wilfond, MD
  - Chief, Division of Bioethics
  - *Ethics of Informed Consent/Genomic studies*
- Current Pediatric Pulmonary Fellows:
  - Chelsea Davis, MD and Sarah Hofman-DeYoung, MD (Third Year)
  - Leah Nuss, MD and Holly Vo, MD, MPH (Second Year)
  - Georgene Hergenroeder, MD, and Weston Powell MD, PhD (First Year)





# Weston Powell MD, PhD (First Year Pulmonary Fellow)

- Born in Seattle, but grew up in CA
- Recently completed a sleep fellowship prior to starting his pulmonary fellowship
- Research interests include the intersection of sleep and circadian disorders with pulmonary diseases
- Favorite foods include raspberries, mussels and scallops
- San Francisco Giants baseball fan; enjoys cooking with friends and home improvement projects





# Georgene Hergenroeder MD (First Year Pulmonary Fellow)

- Born and raised in Houston, TX
- Recently completed pediatrics residency at Texas Children's Hospital
- Interested in pursuing clinical care and research in children with CF, but also hopes to explore other research opportunities as well!
- Loves to hike, bike, and all things outdoors
- Unable to take her family dog Stella (picture here) to Seattle, but hopes to adopt a dog once relocated to the Pacific Northwest!



# Leah Nuss MD

## (Second Year Pulmonary Fellow)

- Originally from New Orleans, LA; went to medical school at Tulane University and residency at LSU-New Orleans
- Big New Orleans Saints fan! Has also adopted the Seattle Sounders for her MLS team
- Research/clinical interests include bronchopulmonary dysplasia and clinical outcomes
- Enjoys cooking, hiking, and crossword puzzles





# Holly Vo MD, MPH

## (Second Year Pulmonary Fellow)

- Originally from Southern CA, went to medical school at UC-San Diego and residency at UC-San Francisco
- Spent time teaching middle school in NYC and studying public health in Baltimore at Johns Hopkins
- Research/clinical interests include health equity, bioethics, complex medical technology dependence, and global health
- Enjoys yoga, hiking with her two adorable miniature dachshunds, and traveling; eats more ketchup than anyone she knows!





# Chelsea Davis MD (Third Year Pulmonary Fellow)

- Born and raised in Salt Lake City; went to college at Univ of San Diego, medical school at Saint Louis University, and residency at Univ of WA/Seattle Children's
- Clinical interests include cystic fibrosis and technology dependent children
- Enjoys being outside, cooking and baking, and has a new affinity for bread making!



# Sarah Hofman DeYoung MD (Third Year Pulmonary Fellow)

- Originally from Michigan, moved to Seattle area after college
- Completed med school and residency at Univ of WA and Seattle Children's
- Clinical interests include bronchoscopy, aerodigestive medicine, children with trach/vent dependence, and physiology
- Adores spending time with her family, playing cello, sewing and do-it-yourself home remodels



# COVID 19 and Clinical Training

- Training in the 2020-2021 Academic Year will be impacted by COVID-19
  - It is uncertain how COVID 19 will impact the 2021-2022 academic year
- The comfort level of current trainees for specific patient care activities is being considered on an individual basis
  - We work together to minimize exposure/risk with a flexible curriculum
- TELEHEALTH has emerged as a format for health care in our region
  - Continuity and sub-subspecialty clinic experiences will include some Telehealth
  - Telehealth has provided some benefits to our patients/families



# Equity, Diversity, and Inclusion

- We at Seattle Children's Hospital and in the Pediatric pulmonary division strive to create an environment inclusive to all people, patients, and families regardless of background or life experiences
- Seattle Children's Hospital leadership is launching a new diversity and inclusion council to review organization's strategies, policies, and practices
- Equity, Diversity and Inclusion training available at Seattle Children's
- Other training curriculums are currently being developed as part of graduate medical education at University of Washington

# Clinical Training

- Year 1 Inpatient Activities (see objectives in Fellowship Curriculum)
  - 14-18 weeks of inpatient or consult service- most do 16 weeks
    - Mixture of TEAM 4 Pulm Service and the separate PULM Consult Service
      - PULM Service Fellow Covers Weekend for both Service and Consult teams
    - Night Call:
      - Weekend PM call by service fellow/attending
      - Weekday PM call from 7 PM-7 AM each night by “off-service” colleagues (Mon-Fri)
      - Weekday PM night call by Year 1 fellows starts in ~ January of Year 1
  - 2 week rotation on introduction to Ventilators/Respiratory Therapists (no PM call)
    - Focus on learning ventilator modes/set-up on lung model, shadow senior RTs in ICU/Ward
  - 2 weeks in CICU as a secondary fellow (no PM call)
    - Focus on cardiopulmonary interactions and care of children with complex congenital heart disease

# Clinical Training

- Year 1 Outpatient Activities (see objectives in Fellowship Curriculum)
  - 4 weeks of SLEEP Medicine (may be divided into 2 two week blocks)
  - ½ Day/Week of continuity clinic when not on inpatient service
  - Minimum of ½ Day/Week of Sub-Subspecialty Pulmonary Clinics when not on service
    - Neuromuscular, VENT, CF, Pulm HTN, Surgical Pulm F/U, Spine, Aerodigestive, RT
    - Schedule 1 week in advance
  - Outreach Clinics (e.g. Alaska, Wenatchee)- exposure at least once





# Clinical Training (Years 2 and 3)

- Inpatient Rotations: 8 weeks/year (mixture of service and consult)
  - May do additional weeks in Years 2 and/or 3
- Outpatient Rotations:
  - ½ day continuity clinic/week when off-service
  - Minimum of ½ day sub-specialty clinic/month when off-service
  - Individualized exposure to additional outreach clinics



# Clinical Conferences/Meetings (Years 1-3)

- Journal Club (Intermittent Works in Progress)
  - Weekly, Fellows present ~ once every other month
- Radiology/Pathology Conference
  - Monthly with Drs. Otjen, Romberg and Deutsch- Year 1 fellows lead case introductions
- Pulmonary Physiology Discussion Group
  - ~ Monthly review of “enhanced” chapters from Levitzky book- Year 1 fellows lead discussion
- Western States Clinical Conference
  - Monthly teleconference with ~ 10 programs, Year 1 fellows present x 1
- Divisional Meetings- weekly with varied topics (e.g. challenging cases, business)
- Complex pulmonary case conference-meets weekly
- Fellows College Curriculum
- Pediatric Pulmonary Center Curriculum
- Optional- specific research meetings

# Teaching/Didactics

- Fellowship Education Committee (RG, JC, senior fellows)
  - On-boarding education, lectures, list of key papers/reviews/guidelines of care
- Fellows as Teachers
  - Case-based teaching during inpatient team rounds
  - Case-based teaching for elective residents and students
  - Chalk-Talks during inpatient rotations (1-2 times/week on service)
  - Lectures to Pulm Nurse Practitioners and Respiratory Therapists
  - Journal Club/Works in Progress talks
  - Oral or Poster Presentations at Regional or National Meetings
- Lectures for Fellows
  - Journal Club/Works in Progress talks by Faculty
  - Faculty core lecture series



# Tracking- Arghhh!

- ACGME requires fellows logging weekly duty hours by activity
  - See senior fellow for guidance
  - One goal is to ensure no work hour violations
  - Use Med Hub database
- Keep Flexible Bronchoscopy Log
- Keep Weekly Cores Sign-out Sheets to evaluate breadth of clinical exposure and expose areas of deficiency/focus for future
  - See ACGME clinical areas of focus in Peds Pulm Curriculum,
  - Kept on Shared Pulmonary Drive

# Research (Bare Bones- The Discovery is FUN!)

- Identify area of interest in first 6 months
  - Basic, translational, clinical, QI are all available
  - Meet with Program Directors and Specific Faculty to identify focus area
  - We can guide you to non-divisional faculty
- For those with interest in Clinical Research (recommended additional coursework):
  - MS or MPH Program at UW with application due in December of Year 1 (60 credits)
  - Maternal Child Health Certificate at UW (15 credits) or Biostatistics Certificate
- Formulate Scholarship Oversight Committee/Identify Mentors by the end of Year 1
  - At least 3 voting members, Program Director is Ad Hoc
  - At least 1 voting member must be from outside the Division
- At minimum, complete ABP-approved Scholarly Work Product to be eligible to take “the boards”
  - Master’s Thesis, Peer-reviewed publication with significant role, Extramural grant award, unpublished progress report for complex project (see ABP website)

# Examples of Past/Present Fellow Research Projects and Possible Funding Opportunities

## Select example of research projects for recent graduates:

- Laurie Eldredge (Role of macrophages in neonatal lung injury) (2016)
- Jonathan Cogen (Chronic AZM use in CF and Concern for Treatment-Emergent Pathogens) (2017)
- BreAnna Kinghorn (Asthma outcomes in South Dakota Natives) (2018)
- Erin MacKintosh (Evaluation of OSA in children with Marfan Syndrome) (2019)
- Laura Ellington (HIV infection and lung function in Kenyan Adolescents) (2020)
- David Panek (Sleep disordered breathing in children with early-onset scoliosis) (2020)

## Select examples of possible funding opportunities that have been successful:

- CF Foundation Training Grants ([website](#))
- Early Career Awards from Thrasher Research Fund ([website](#))
- Firland Foundation Research Grants ([website](#))
- Arthur Rosenfeld Endowment (specific to pediatric pulmonary fellows at Seattle Children's)



# Evaluations

- ACGME Milestone Evaluations of Fellows every 6 months
  - Officially twice yearly by Faculty, yearly by other disciplines
  - 6 ACGME competencies from novice to expert (1-5)
  - Additional pulmonary specific measures (e.g. physiology, bronchoscopy)
  - Clinical Competency Committee reviews scores and comments; makes recommendations on progress/goals (Redding, Debley, Ong, Toprak, [Cogen and Gibson-ad hoc])
- Annual In-Site Peds Pulm Practice Sub-Board Exams
  - Review strengths and weaknesses from exam scores
- Program Evaluation by Fellows and Faculty
  - Annual review meeting of all rotations and meetings to improve curriculum
  - Fellows to evaluate Faculty and Program annually
  - Program Executive Committee Annual Meeting (Redding, Striegl, Fellow, Gibson-ad hoc)
  - Fellow Education Committee (Gibson, Cogen, 3<sup>rd</sup> Yr Fellows)

# Free Time!

- New concept after residency experience!
  - Can be unsettling but consider this the “educational playground”
- Case-based reading to gain expertise in Peds Pulm
  - “Humility is only a case away”
- Read a Peds Pulm textbook by end of Fellowship
- Coursework
- Explore research ideas
- Refine research ideas
- Conduct Research
- **Have Fun!**



# Our Fearless Leaders Ron (left) and Greg (right)





Celebration for Greg at 2019  
ATS Meeting



CF Team at 2019 NACFC  
Meeting





# Eating at 2019 ATS Meeting





# Halloween in the Pulmonary Division!





# Hiking in the Pacific Northwest!

